

ABSTRACT OF THE DISCLOSURE

A method and a system are disclosed for providing quality of service (QoS)-driven channel access within a basic service set (BSS) in a wireless network. It is determined at a point coordinator (PC) station of the BSS whether at least one of up-stream traffic and side-stream traffic is scheduled to be transmitted from at least one non-PC station in the BSS. The PC station then determines whether at least one transmission opportunity (TO) is available during a contention free period (CFP) of a superframe for transmitting one of up-stream traffic and side-stream traffic in the BSS. The superframe contains the CFP and a contention period (CP). At least one available TO is allocated to a selected non-PC having at least one of up-stream traffic and side-stream traffic to transmit. A multipoll frame is then sent from the PC station containing information relating to each allocated TO. The multipoll frame identifies each respective allocated TO by a duration time and one of a virtual stream identifier (VSID) and an association identifier (AID). According to one aspect, the multipoll frame contains information relating to at least two allocated TOs, and each successive TO starts after a preceding TO when a duration time associated with the preceding TO expires. According to another aspect, the multipoll frame contains information relating to at least two allocated TOs so that when a data frame that is indicated to be a final data frame is transmitted in a selected TO, a TO that is subsequent to the selected TO begins a short interframe spacing (SIFS) period of time after the preceding station sends the final data frame.